

AMENDMENTS TO THE CLAIMS

Listing of Claims

A listing of the entire set of pending claims is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A light-emitting device, comprising:
at least a substrate (1),
an anode (2),
a first hole transport layer (3),
a light-emitting layer (5) and,
a cathode (6),
wherein a first hole blocking layer (4) is arranged between the first hole transport layer (3) and the light-emitting layer (5), and
a layer structure comprising at least one further hole transport layer and at least one further hole blocking layer arranged between the first hole transport layer and the anode.
2. (Currently amended) A light-emitting device as claimed in claim 1, ~~characterized in that~~ further comprising a second hole blocking layer (7) is arranged between the cathode (6) and the light-emitting layer (5).
3. (Canceled)
4. (Currently amended) A light-emitting device as claimed in claim [[3]] 1, ~~characterized in that~~ wherein the further hole blocking layers (9, 11) and hole transport layers (8, 10) are arranged in an alternating manner.
5. (Currently amended) A light-emitting device as claimed in claim 1, ~~characterized in that~~ wherein the oxidation potential of the material of a hole blocking layer (4, 9, 11) is higher than the oxidation potential of an adjoining hole transport layer (3, 8, 10).

6. (Currently amended) A light-emitting device as claimed in claim 1, ~~characterized in that~~ wherein the material of a hole blocking layer ~~(4, 7, 9, 11)~~ is selected from the group consisting of 2, 9-dimethyl-4, 7-diphenyl-1, 10-phenanthroline (Bathocuproin, BCP), 3-(4-biphenyl)-4-phenyl-5-tert-butylphenyl-1,2,4-triazole (TAZ), 2-(4-biphenyl)-5-(*p*-tert-butylphenyl)-1,3,4-oxadiazole (tBu-PBD), 2-(4-biphenyl)-5-(4-tert-butylphenyl)-1,2,4-oxadiazole (PBD), 1,3,5-tris-(1-phenyl-1H-benzimidazol-2-yl)benzene (TBPI) and oligophenyls with perfluorinated side chains.

7. (Currently amended) A light-emitting device as claimed in claim 1, ~~characterized in that~~ wherein an electron transport layer ~~(12)~~ is arranged between cathode ~~(6)~~ and light-emitting layer ~~(5)~~.

8. (New) A light-emitting device comprising:
an electroluminescent layer for emitting light when excited;
a hole transport layer for facilitating injection of holes into the electroluminescent layer; and
a hole blocking layer, located between the electroluminescent layer and the hole transport layer, for preventing injection of holes into the electroluminescent layer,
wherein a first highest occupied molecular orbital (HOMO) energy level of the hole blocking layer is lower than a second HOMO energy level of the hole transport layer.

9. (New) The light-emitting device of claim 8, wherein the first HOMO energy level of the hole blocking layer is lower than a third HOMO energy level of the electroluminescent layer.

10. (New) The light-emitting device of claim 8, wherein a first distance between the highest occupied molecular orbital (HOMO) and the lowest occupied molecular orbital (LUMO) of the hole blocking layer is greater than a second distance between the HOMO and the LUMO of the electroluminescent layer.

11. (New) The light-emitting device of claim 10, wherein a third distance between the HOMO and the LUMO of the hole transport layer is greater than the second distance between the HOMO and the LUMO of the electroluminescent layer.
12. (New) The light-emitting device of claim 8, wherein the hole transport layer comprises a material having a low ionization potential with a low electron affinity.
13. (New) The light-emitting device of claim 8, further comprising at least one second hole transport layer and at least one second hole blocking layer, located between the hole blocking layer and the electroluminescent layer, wherein the at least one second hole transport layer and the at least one second hole blocking layer are arranged in an alternating manner.
14. (New) The light-emitting device of claim 8, wherein the hole blocking layer has a thickness of less than or equal to 10 nm.
15. (New) The light-emitting device of claim 8, wherein the hole blocking layer is arranged to permit a first number of holes to flow into the electroluminescent layer that is approximately equivalent to a second number of electrons flowing into the electroluminescent layer.
16. (New) The light-emitting device of claim 1, wherein the first hole blocking layer is arranged to permit a first number of holes to flow into the light-emitting layer that is approximately equivalent to a second number of electrons flowing into the light-emitting layer.